State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-15-3

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

IVECO N.V.

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Iveco N.V. 1996 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Wheeled Loader, Crawler Loader, Dozer

Fuel Type: Diesel

Engine Family	Liters (Cubic Inches)	Exhaust Emission Control Systems and Special Features
TVE7.7R6DARA	7.7	(469)	Smoke Puff Limiter Turbocharger

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matters (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

<u>Exhaust Emissions (g/bhp-hr)</u>			Smoke Opacity (%)			
<u>THC</u>	<u>co</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

	Exhaust Emission (g/bhp-hr)				Smoke Opacity (%)		
Engine Family	THC	<u>co</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
TVE7.7R6DARA	0.6	0.8	6.7	0.2	4	4	6

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations. ,/

Executed at El Monte, California this

/day of March 1996.

VR. B. Summerfield
Assistant Division Chief
Mobile Source Division

EO. # U-R-15-3

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY OFF-ROAD DIESEL ENGINES

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Manufacturer:	IVEC	ONV		Engine Family:	TVE7 70 61) A D A
				Eng. Co.		
				Cert Test Pro	•	
				per Combustion		
				_KW)		
				ow Plug X		
ruei Type(s):				Diesel X		
Dissal Com Tue				Other (specify) _		
			•	Other (specify)		
Enhance ECC (e Equipment:	W	heeled Loader	Crawler Loader	. Dozer	-,, -
Exhaust ECS (e.g., MFI, 1C,	CAC):	(use abbrev	SPL, TC viations per SAE	J1930 Л. N9	(3)
			<u> </u>			
Engine Model (Eng Code)	Rated HP @ RPM	Fuci Rate @ Rated HP mm³ / stroke (lbs/hr)	Fuel Pump & Injector Part no.	(Governor) ECM/PCM Part no.	EGR Valve Part no	PTOX/ Catalytic Converter Part no.
8365.26.584	193@2150	99 (70.0)	PES6P120A 720RS3369 0402076795	RSV450 1075P5A631	N/A	N/A
			KBEL 90 S76 554			
8365.26.540	182@2000	99 (65.4)	PES6P120A 720 RS3371 0402076798	RSV450 1000P5A637-1	N/A	N/A
		;	KBEL 90 \$76 554			
8365.26.541	173@2000	94 (62.1)	PES6P120A 720RS3371 0402076797	RSV450 1000P5A637	N/A	N/A
			KBEL 90 S76 554			
D-, 7						
Date Issued:						
Revisions: April	11, 1996 May 3	, 1996	Ī	1	ı	